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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,190	03/02/2004	Frank L. Hall	4718.3US (00-0316.03/US)	1971
24247	7590	03/15/2006	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			HEINRICH, SAMUEL M	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/791,190

Applicant(s)

HALL, FRANK L.

Examiner

Samuel M. Heinrich

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Apparatus or system claims 1-21 are described using method language limitations which may not clearly define the claimed structure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,752,668 to Rosenfield in view of USPN 5,442,416 to Tateyama.

Rosenfield teaches the process and system for removing excess material from a semiconductor wafer employing an excimer laser. The wafer has been previously treated by treating a semiconductor with a resist, exposed, developed and selectively removed for the purposes of patterning various areas of the wafer. But such a manufacturing process leaves some of the resist and contaminants on the wafer. Rosenfield recognizes the need to remove the excess resist and contaminants and provides a method and system for their removal with a laser.

Tateyama, while describing prior art, describes (Fig. 1) the method and apparatus for providing a substrate (wafer), subjecting to a preheating step (4) to remove moisture, cooled, conveyed to a coating unit where a photo-resist is evenly coated on the surface of the wafer, and the "photo-resist-coated wafer W is sent to a heating unit 8" where "the photo-resist solution on the wafer is converted into a stable film". This is the "baking" step in applicant's claims. Afterwards, the pattern is developed and excess resist material is removed.

The difference between the claimed invention and the combined teachings of Rosenfield and Tateyama is that Tateyama teaches the "prior art" recognized in Rosenfield, and Rosenfield provides the cleaning steps with a laser after the semiconductor wafer has been patterned, after a substrate (wafer) has been treated with an initial preheating, application of a resist layer on the substrate (wafer), and a baking step, according to the method of Tateyama. Therefore, in view of the difference between the subject matter as a whole sought to be patented and the totality of the teachings of prior art, as established above, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, to follow the teachings of Rosenfield and provide a step and apparatus for the removal of contaminants from a substrate with a laser after the substrate has been preheated (to remove moisture), coated with a resist layer and heated (baked) and patterned in the method and apparatus taught in Tateyama.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP403155488A. The English Abstract describes a combination of a mold and a laser. The intended use of the apparatus with a particular work piece or with method limitations does not impart patentability to the apparatus claims.

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP05144093A. The English Abstract describes a combination of a mould and a laser. The instant claimed intended use with automolding does not impart patentability to the apparatus claims.

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP408167769A. The English Abstract describes a combination of a molded part and a laser. The instant claimed intended use with automolding or with a particular substrate or other method limitations does not impart patentability to the apparatus claims.

Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP11006073A. Figure 3 shows a combination of a mould and a laser. The laser is used to remove resist. The instant claimed intended use does not impart patentability to the apparatus claims.

Claims 1-21 are rejected under 35 U.S.C. 102(a) as being anticipated by USPN 6,866,910 to Kamezaki et al. Kamezaki et al describe Figure 9 as comprising steps of exposing resist to laser irradiation and subsequent molding. The instant claimed automolding does not impart patentability to the apparatus claims.

Claims 2, 5, 8, 11, 14, 17, and 20 are rejected under 35 U.S.C. 103(a) as obvious over JP403155488A or JP05144093A or JP408167769A or JP11006073A or USPN 6,866,910 in view of USPN 4,904,498 to Wu. Wu describes (Abstract) well known excimer laser for removal of resist and the use of an excimer laser in any of the base references would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the laser is efficient for resist removal.

Response to Arguments

In response to applicant's argument that the use of the apparatus in Rosenfield et al and Tateyama et al is not the same as applicant's use, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1725

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

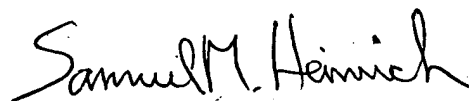
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Samuel M Heinrich
Primary Examiner
Art Unit 1725

SMH